to compare the information available about the place of these examinations, and their effectiveness, with that available about two other topics of comparable importance to the health of children—the effectiveness of whooping-cough vaccine (Medical Research Council, 1951) and poliomyelitis vaccine (Poliomyelitis Vaccine Evaluation Center, 1955; Medical Research Council, 1957).

Summary

Only about 60% of the medical defects that cause the rejection of young men for military service are recorded on the documents of the School Health Service. This proportion is largely independent of the interval between the examinations at school and the pre-service examinations, and the discrepancies between the records are not limited to defects that might have developed in this interval. There is little information available about the effectiveness of the "periodic medical inspections" of the School Health Service, and there is need for their reassessment.

This study was made possible by the generosity with which principal school medical officers of very many local authorities lent their records. The Ministry of Education gave the inquiries its support, and members of its staff have given many hours for the discussion of the material. The Ministry of Labour and National Service and the Royal Air Force made the original records available. I am most grateful to Professor J. M. Mackintosh, without whose encouragement the project would never have been started, and to Dr. J. N. Morris, Director of the Social Medicine Research Unit, for much valuable criticism.

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VIRUS RESEARCH SUPPORTED BY THE ROCKEFELLER FOUNDATION

This year the Rockefeller Foundation will spend over a million dollars on its virus research programme, $150,000 more than last year. The money will be shared between the Foundation's central virus laboratories in New York, professional field staff, and the five "co-operative" field laboratories in India, South Africa, Trinidad, Brazil, and California which the Foundation helps maintain.

A good example of the value of these field laboratories was provided last year during the outbreak of Kyasanur Forest disease in Mysore. A rumour reached the laboratory in Poona in March that numbers of monkeys were dying in Kyasanur Forest. Could this mean that yellow fever had spread to India ? A virus team went at once to Mysore to investigate. It soon established that the epidemic, which affected men as well as monkeys, was not yellow fever but was caused by a hitherto unknown virus carried by ticks. The epidemic eventually involved several hundred square miles of forest, with at least 500 known human cases and over 70 fatalities, before it died down with the arrival of the monsoon. A vaccine against Kyasanur Forest disease was prepared in the United States, and this year the Indian Government, aided by a grant of $100,000 from the Rockefeller Foundation, is able to offer vaccination to those in the infected area.

Programme of Research

In its latest quarterly report* the Rockefeller Foundation discusses its programme of virus research. Work is being concentrated on viruses carried by arthropods. Most of these viruses, states the report, fall into two well-defined groups, known as A and B. All the members of group B, the group most intensively studied, have some relationship to each other, and within the group there are families of very closely related viruses. The new Kyasanur Forest virus from India, for instance, is chemically so like the viruses which cause Russian Spring–Summer encephalitis and Omsk haemorrhagic fever that only the most delicate tests will differentiate them; the virus of Japanese B encephalitis, which is encountered periodically in California, and West Nile fever virus belong to another such complex. These close relationships assist in the rapid identification of unknown viruses, for representative group-B viruses can be used to test in a single operation whether an unknown virus belongs to the group or not. They also pose interesting epidemiological questions. For instance, a man in the Amazon basin who recovers from an attack of Ilhéus virus fever develops antibodies which give him a fairly high degree of immunity to West Nile virus, a virus he is most unlikely to encounter. There is also the curious fact that yellow fever has never spread to Egypt, the Middle East, or the Far East. Perhaps this may be due to some immunity conferred by infections with milder relatives of the yellow fever virus, the report suggests.

All the Foundation's field laboratories conduct systematic and widespread antibody surveys to gather data for the solution of these epidemiological puzzles. Their professional and technical teams are always ready to investigate outbreaks of fever-like diseases among humans or animals in their areas. In South Africa last spring, for example, the prompt response to reports of a strange disease among sheep in the Middelburg region of Cape Province resulted in the isolation and identification of a new group-A virus and in the formulation of control measures for the future.

The Virus Laboratories

The work of the five field laboratories is co-ordinated and complemented by that of the central laboratory in New York. To it field isolations and specimens are sent for definitive study. The central staff devote a good deal of time to improving the methods and technique for handling specimens in the field laboratories, but their main interests are the relationships among the arthropod-borne viruses as a group and basic scientific studies concerning their nature and functioning. The field stations are all conducted co-operatively by the Foundation and local government or research agencies. The virus research centre in Poona functions as a unit of the Indian Council of Medical Research, and it is financed jointly by the I.C.M.R., the Rockefeller Foundation, and to a certain extent by the government of Bombay State. In Johannesburg the South African Institute for Medical Research and the Council for Scientific and Industrial Research co-operate in contributing to the budget for personnel and operating expenses, while the Poliomyelitis Research Foundation provides laboratory space, services, and maintenance. In Brazil, the virus laboratory is conducted in co-operation with the Ministry of Health. The land and laboratory buildings of the Trinidad regional virus laboratory in Port-of-Spain are provided by the Government of Trinidad and Tobago, which with the Colonial Development and Welfare Fund also pays most of the salaries of the local personnel. In Berkeley, California, a Foundation staff member handles special studies on insect-borne viruses, using laboratory space provided by the State of California.

The Rockefeller Foundation also collaborates informally with other virus laboratories in Nigeria, Uganda, Israel, Malaya, Australia, and Japan.

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